

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 12/05/97
Date Received: 11/26/97
Project: PO# M59226
Date Extracted: 11/26/97
Date Analyzed: 11/26/97

**RESULTS FROM THE ANALYSIS OF WATER SAMPLES
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M59226	0.90	0.42	0.92	<0.05
Method Blank	<0.05	<0.05	<0.05	<0.05

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Date of Report: 12/05/97

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 711079-01 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.55	0.61	10	0-20
Copper	mg/L (ppm)	0.57	0.62	8	0-20
Nickel	mg/L (ppm)	0.53	0.56	6	0-20
Zinc	mg/L (ppm)	0.07	0.07	0	0-20

Laboratory Code: 711079-01 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery		Acceptance Criteria	Relative Percent Difference
				MS	MSD		
Chromium	mg/L (ppm)	5	0.55	90	89	80-120	1
Copper	mg/L (ppm)	5	0.57	91	90	80-120	1
Nickel	mg/L (ppm)	10	0.53	88	88	80-120	0
Zinc	mg/L (ppm)	5	0.07	90	89	80-120	1

Laboratory Code: Laboratory Control Sample

Analyte:	Reporting Units	Spike Level	% Recovery		Acceptance Criteria	Relative Percent Difference
			LCS	LCSD		
Chromium	mg/L (ppm)	5	92	93	80-120	1
Copper	mg/L (ppm)	5	94	96	80-120	2
Nickel	mg/L (ppm)	10	90	92	80-120	2
Zinc	mg/L (ppm)	5	89	92	80-120	3

PJ # 71107

KJ

11-26-97

1:25

Send Report To:

SITE NO.

PROJECT NAME

PURCHASE ORDER #

7238

metro self monitor

m 59226

SAMPLERS (signature)

PROJECT LOCATION

REMARKS

SAMPLE DISPOSAL INFORMATION

Dispose after 30 days
Return Samples
Call for Instructions

Sample #

**Date/Time
Sampled**

Type of Sample

of
Jars

Lab
Sample #

Analyses Requested

m 59226

11/26/92

H₂O

1

01

Cu Cu Ni Zn

SIGNATURE

PRINT NAME

COMPANY

Date _____

Time

Relinquished by:

Gerald Thompson

ACW

11/26/82

12:54

Received by:

KURT JOHNSON

F B, I

11/26/97

12:57 PM

Relinquished by:

Received by:

06/09/97

AKC-0011236

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Jensen, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
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FAX: (206) 283-5044
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December 5, 1997

DUPLICATE COPY

INVOICE #97ACU1205-1

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project PO# M59226: Results of testing requested by Gerry Thompson
for material submitted on November 26, 1997.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID #(b) (6)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

December 5, 1997

**Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134**

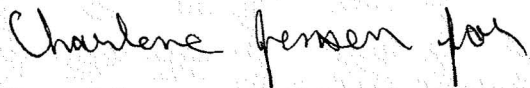
Dear Mr. Thompson:

Included are the results from the testing of material submitted on November 26, 1997 from your PO# M59226 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



**Kurt Johnson
Chemist**

**Enclosures
ACU1205R.DOC**